MEMORANDUM

Assistant Secretary for Water and Science

To: Anne J. Castle From: John E. Tubbs Date: March 20, 2012 Re: World Water Forum 6

The Department of the Interior's participation at the World Water Forum 6 (WWF6) in Marseille, France was well received. Seven people represented the Department including myself, four staff from Reclamation (Dick Ives – International Office, Tim Randle, Jeanne Major, and Subhrendu Gangopadhyay – Technical Services Center) and four staff from USGS (Ingrid Verstraeten – International Program Office, Vern Schneider, Jody Eimers, and Kimberly Taylor – International Water Resources Branch). Dick and Jody played an important upfront role in preparing for the conference. At the conference it was a team effort and everyone did an excellent job. I very much appreciated the support the bureau representatives gave me.

Key Takeaways:

Right to Water – Right to Water Information: As the first three days of the session evolved two thematic issues the "right to water" and the "integration of science and policy" repeated themselves in session after session. Given this juxtaposition the idea of a parallel emphasis of the right to water and a right to water information became apparent. To fully empower individuals and communities to advocate for the right to access sufficient quantities of clean water supplies information about source, quality, and security of these water resources must also be available. The USGS is particularly well poised to provide this type of information or to provide the technical assistance to governments that are trying to develop water resources information for their jurisdiction be it local, national, regional. In partnership with the European Union's scientific community best management practices could be established and deployed to empower people around the world. In addition to data collection and analysis, strategies need to be developed to make this information available to local communities and individuals. This would be an important step towards empowering individuals and building capacity at the local level.

Science and Policy Interface: Many sessions focused on this issue and it was central to three sessions in which I participated. Consistently there is expressed frustration that policy development is disconnected from scientific understanding. The frustration is shared on both sides of the issue. The science community does not believe policy is based on available science. The policy community is frustrated with science focused on new frontiers while not providing answers to policy and management decisions being made today.

The European Union is advocating an initiative to "improve the delivery of research for water governance with a view to increasing the capacity/strengthening leadership of decision makers at veracious levels by establishing effective science-policy interfaces. And to develop a leadership in science-policy interface and dialogue between researchers and water managers, technology innovation dissemination and exploitation of research results for European growth and competitiveness by 2020." The U.S. shares these aspirations but is cautious about creating new layers of international governance to achieve these goals. There are effective partnerships being

built at the agency levels and the USGS has many examples of this type of collaboration. The DRAGON initiative is an excellent example of international collaboration on science and policy focused on delta environments around the world. There are many more that can be identified.

I raised two issues at a side meeting with USAID, State Department and the European Commission on Joint Research. First there is a "mechanical" problem we need to address if we are to be successful in improving the links between science and policy. Universities and to an extent Science agencies have institutionalize incentives that reward primary or "cutting edge" science. New discoveries and pushing the envelope on current knowledge are prioritized over secondary or applied science. If our goal is to apply existing scientific knowledge to effect policy and provide solutions to water supply and water quality issues for people, crops, energy, and environment we need to equally reward applied science. Secondly, much of the conversation focused on improving efficiency. Defining the term efficiency is critical in this discussion. Most people think of efficiency as closing systems, reducing leaks, and providing technology to reduce demand at the point of use. These are important goals. However, if you define efficiency at a basin or watershed level end use efficiency may in fact reduce water in the system as any diversions will be totally consumed. An ecosystem/watershed approach to efficiency is necessary if we are to truly balance demand and supply.

<u>Water in the US American West</u>: The session provided an excellent dialog about the lessons learned and the processes of adaptation in the US West. Also, the session contrasted the dialog in the US's where large water development projects already exist with countries planning future development. The incremental adaptation strategies key to moving towards a sustainable water resources future in the U.S. were challenged by some in the audience. Examples such as the transformative policy changes in Australia were offered as more relevant case studies for world

nation states. The U.S. panel disagreed. Strong emphasis on watershed level collaboration, developing adaptive strategies within the frame work of the prior appropriations doctrine, reliance on market forces to drive changes to current water allocation and recognition of regional priorities were all areas of agreement among the panelists. Questions about the impact and sustainability of large reservoir development as represented by the federal projects managed by the Army Corps of Engineers and Reclamation were raised at the session and in side conversations. If policy makers of the time understood the impacts to ecosystems and to native cultures prior to the development of water in the American West different strategies for development would have been made. This is reflected by the investment in restoration and other strategies to promote sustainable ecosystems and in the settlements of Indian reserved water rights. However, it is unlikely that the economic and public benefits of these investments would

have been forgone. These lessons may be best represented by The Nature Conservancy's focus on reducing the ecological impact of water resources development in emerging countries. TNC's position is not one of "don't develop" water resources but develop in ways that provide the public and economic benefits while maintaining ecosystem health and connectivity.

Department of the Interior

Present at WWF6 were representatives from the Bureau of Reclamation and US Geological Survey. Both bureaus previously participated in World Water Forums and provided excellent

information at WWF6. USGS's office of International Programs and International Water Resources Branch of the Office of Water Information provide the administrative structure for USGS to participate in scientific research, technology transfer, and training. Reclamation's International Office is much smaller. Growing stressors on water resources such as population, climate change, urban and industrial development, and new storage and hydropower projects would suggest establishing a greater international role for Interior bureaus. The biggest constraint for both bureaus is budget; this is particularly true for Reclamation. It is difficult to justify an increasing international office budget for Reclamation when there are so many unmet needs in the seventeen Western States. USGS has a larger international program and the ability to partner with other agencies to deploy USGS science. However, increasing direct appropriations for these programs is also difficult given the trade off with US focused programs in a flat or reduced budget environment.

For future Forums it would be beneficial to include the Fish and Wildlife Service and possibly the National Park Service. Interior's WaterSMART initiative is providing Federal leadership in establishing a sustainable water resources future. Key to the initiative is balancing supply and demand for all sectors (people, crops, environment, and energy). USFWS would have a compelling water resources story to tell about ecosystem benefits and preserving riverine connectivity.

Session Summary:

Monday, March 12

(6:00 to 7:00 pm): Side Event UN International Year on Water Cooperation and the World Water Day in 2013. Participated on a panel with10 people

Tuesday, March 13

(7:45am-8:30am) US Delegation meeting – Overview of day's events (2:30pm-4:30pm): Enabling Environment Topic CS 3 Target 6 "A global Mechanism to Measure, Monitor and Share Scientific and Social Data. 10 minute presentation and panel discussion.

Wednesday, March 14

(7:45-8:30 am) US Delegation meeting – Overview of day's events (11:00am-1:00pm) Science and Water Policy Interface: When Science and Innovation Meet Water Policy. Facilitated conversation with Dominique Ristori, Director-General Joint Research Center European Commission.

(2:15pm-3:00 pm) Side meeting between U.S. Department of State and the European Union (EU). Attended by DA Donald Steinberg, USAID Christian Holmes, USAID Aaron Salzberg, DOS USAID Mr. Dominique Ristori EU Andre Leibart, EU Water Coordinator, John Tubbs DOI, and Ingrid Verstraeten USGS

Thursday, March 15

(7:45am-8:30am) US Delegation meeting – Overview of day's events (11:00am-1:00pm) Special Focus Session: Water in the US American West: 150 years of Adaptive Strategies. 5 min opening, 10 min presentation and panel discussion.